

ORAL HYGIENE

K. LALITHA¹, R. PUSHPAMALA² & G. KEVIN RUTHER³

¹Principal M.Sc. Nursing, Ph. D (Nsg), Lalitha College of Nursing, Guntur, Andhra Pradesh, India

²M.Sc. Nursing, Ph. D (Nsg) Nurse Educator, King Saud bin Abdulaziz University of Health Sciences,
Jeddah, Saudi Arabia

³BDS, Indhira Gandhi Institute of Dental Sciences, Puducherry, Tamil Nadu, India

ABSTRACT

The research approach adopted for the study was descriptive survey purposive sampling technique was used to obtain an adequate size of sample. The sample comprised of 50 primary school students. The tool used for data collection was a structured questionnaire. The first part of tool helped in the collection of demographic variables of children, second part was used to assess the knowledge on attitude of children regarding oral hygiene.

KEYWORDS: Primary School Children, Oral Hygiene, Periodontitis, Periodontium

OPERATIONAL DEFINITIONS: MEANING

Effectiveness

Effectiveness refers to the improvement seen in terms of knowledge and attitude about the oral hygiene among primary school children after planned teaching programme.

Knowledge

It refers to verbal statement made by the primary school children regarding the oral hygiene.

Primary School Children

In the study the term primary school children refers to the 5th class students.

Oral Hygiene

Oral hygiene means care of teeth, and brushing steps, importance of dental checkup and dietary management.

Structured Teaching Programme

It refers to a planned teaching programme using different teaching methods and materials. It includes definition, causes, risk factors, stages of dental caries, clinical manifestations, management prevention and health education.

Dental: Relating to dentistry or to the teeth.

Decay: The gradual decay composition of dead organic matter.

Tooth Decay: A Sticky rough coating on the teeth formed by food deposits, bacteria and dead cells. It is the chief cause of dental decay.

Periodontitis: Inflammation of the Periodontium.

Periodontium: The connective tissue between the teeth and their bony sockets.

INTRODUCTION

Oral Health is the absence of disease and the optimal functioning of the mouth and its tissues. Oral diseases such as dental cancer, oral cancer, periodontitis are a global health problem in both industrialized and especially in the developing countries. In many developing countries, oral health care utilization is limited and teeth are often left untreated or extracted. Oral health is mostly related to hygiene and diet. Behavior programmes that promote oral health behaviour, attitude, knowledge are extremely important for the overall reduction in caries experience in children. School provide an opportunity to reach all children not merely those who see the dental care. School based oral health education programmes have been considered an important contributory factor to improve children's oral health behaviour and preventive practices. Oral hygiene helps to maintain the healthy state of the mouth, teeth, gum and lips.

Brushing cleans the teeth of food particles, plaque, and bacteria. It also manages the gums and relieves discomfort resulting from unpleasant odour and tastes. Flossing further helps to remove plaque and tastes from between teeth to reduce gum inflammation and infection. Complete oral hygiene enhances well being and comfort and stimulates the appetite.

Healthy teeth are important to children's overall health. From the time of child born, there are things to promote healthy teeth and prevent cavities. So, clean teeth with a soft tooth brush.

Preventing dental disease in children doesn't have to be a nightmarish experience for information on why brushing and flossing daily is so, important for your little one's health task, not only easier, but enjoyable at the same time.

Poor oral hygiene is an known important predisposing factor of some oral disease.

The prevalence and severity of periodontal disease were considered to be relatively high in Africa during the 1960s to 1970s and early 1980s. In fact, it is still. So, today particularly among the deprived children of Africa living in the rural area and city slums.

This study was aimed at evaluating the oral health of the children aged below the 10 years. Rural community there after suggested to improve them.

Oral health education like health in general, can work best when the state of the knowledge the general oral habit of the recipient is taken into account. Therefore is an urgent need to investigate the oral health status of children in rural community and identify strategies to improve on them. This is because oral health practice and care during childhood will determining the life time oral health status.

NEED FOR STUDY

Various studies have revealed that one cannot be said to have good health without proper oral health. Further, health for all by the year 2025 can only be achieved through the medium of primary health care approach.

The concept of Dental Health under the theme, "Health for all by 2025 AD" is the significant issues among human beings because 95% of all human beings have one or other dental problems at least once in their life time.

The researcher found that oral debris is commonly seen in mouth with poor oral hygiene on the age group of 5-8 years children going to school need to think of maintenance of proper oral hygiene.

“Prevention is better than cure”. In order to develop healthy teeth for children they should be taught about the dental hygiene, dental visits daily mouth care, common dental problems and methods of prevention and dental problems.

Personal oral hygiene is the single most effective measure of prevention of dental caries.

Our research and policy solutions focus on areas critical to children include access to adequate dental health care, pre-kindergarten programme for all three and four years old, and home visiting programme that assist new families who also study benefits of early childhood interventions and programmes and how investing in children yields significant dividends for families. Tooth decay is the most common disease of childhood five times more than asthma. For every child with medical insurance, there are nearly three children without dental insurance.

Dental health has a major effect on children's health education and wellbeing. Research shows that kids who do not receive dental care miss a significant number of school days, use expensive emergency room, services more often and face worsened job prospects as adults, compared with their peers who receive care. By 2014, 5.3 million more children will receive dental coverage without state policy changes. Many of these kids will not get actual care, oral hygiene and personal hygiene are about the cheapest form of preventive health measures. Though cheap, it is surprisingly one of the most ignored in practice, especially in the under privileged rural communities.

TITLE

A study to assess the effectiveness of structured teaching programme on knowledge and attitude regarding oral hygiene among the primary school children in a selected rural area at Medikonduru.

Hypothesis 1: There will be significant difference between pretest and post test knowledge and attitude score on oral hygiene among primary school children.

Hypothesis 2: There will be a significant association between knowledge and attitude of primary school children about the oral hygiene and selected demographic variables.

REVIEW OF LITERATURE

Review on Utilization of Dental Services in a Field Practice Area in Mangalore, Karnataka

Sijan Pandyal, Ashwini Rao done a study on utilization of dental services in a field practice area in Mangalore, Karnataka. A house to house survey was conducted in the field practice area of Jappinagmogaru, Mangalore, Karnataka where dental services are provided for free of cost. The area consisted of 600 houses as stated in voter's list provided by the gram panchayat. A pilot study was conducted on 20 houses to test the feasibility of the study. Random sampling was done and 175 houses were selected. After obtaining consent, questionnaires were distributed to 1995 adults above 18 years residing in the selected house to assess their dental utilization behaviour. The questionnaires were received from 158 houses. Data were analyzed using SPSS version 11.5. Chisquare and Fisher's exact tests were used for comparison of categorical data. Level of statistical significance was set at $P < 0.05$. A percentage of 28.6 (n=52) never visited a dentist, where as 67% (n=122) visited a dentist only when they felt it was needed. 44% (n=80) had dental diseases out of which 46.3% had not visited a dentist for that particular problem. The most common dental problem was toothache, followed by tooth decay, mobile teeth and bleeding gums. Dental visit experience for 41.22% (n=47) was very satisfactory.

RESEARCH METHODOLOGY

Setting of the study for the present study was primary school children at Medikondur, Guntur district. We selected the IV and V class students. The target population is the aggregate of cases about which the investigator would like to make generalizations. The accessible population is primary school children confirm to the designated criteria. The children who are studying in primary school at Medikondur are the accessible population. Sample size 50 children's in the present study, population and study projects of the sample were selected by using purposive sampling technique. Sampling Criteria the inclusion criteria of the present study were, children with poor oral hygiene, children in primary school, and willing to participate in the study.

Descriptive of the Tool

A structured interview questionnaire comprises three parts. Part – I: Consists of items regarding the background factors of the children, Part – II: regarding the oral hygiene and dental caries definition, clinical manifestations, treatment, preventive aspect. Part – III: Used to record the attitudes about the children regarding the oral hygiene, brushing steps, nutrition and prevention of dental caries.

ANALYSIS AND INTERPRETATION OF DATA

This chapter deals with the analysis and the interpretation of data collected through interview schedule among primary school children regarding oral hygiene. The computation of the data was done by using inferential and descriptive statistics based on the objectives of the study. Data were collected from 50 samples from primary school at Medikonduru.

Organization and Presentation of Data

The raw data collected were entered in master data sheets and analyzed and interpreted using descriptive statistics. The data are organized and presented under the following sections.

Section-I: Analysis of demographic data of primary school children.

Section-II: Assessment of knowledge level of the student regarding oral hygiene.

Section-III: Assessment of attitude level of the primary school children regarding oral hygiene.

SECTION – I

Table 1: Frequency and Percentage Distribution of the Primary School Children Regarding Oral Hygiene According to this Background

S. No.	Demographic Variables	Frequency	%
1	Age		
	a. 9-10 years	15	30%
	b. 10-11 years	35	70%
2	Education		
	a. IV standard	15	30%
	b. V standard	35	70%
3	Family Income		
	a. Upper income	--	--
	b. Middle income	35	70%
	c. Lower income	15	30%
4	Education of the Parents		

	a.	SSC/SSLC	35	70%
	b.	Intermediate	15	30%
	c.	Graduate	--	--
	d.	Post graduate	--	--
5	Dietary Habits			
	a.	Vegetarian	--	--
	b.	Non-vegetarian	50	100%
	c.	Lacto-vegetarian	--	--
6	Use of Milk			
	a.	Morning	30	60%
	b.	Evening	10	20%
	c.	A and B	5	10%
7	In Tooth Decay Present			
	a.	Yes	20	40%
	b.	No	30	60%

Table shows the distribution of primary school children according to background factors such as age, sex, education, family income, education of parents, dietary habits, use of milk, & In tooth decay present 50 primary school children were included in this study. They were observed at primary school set up. Regarding the age, majorities 35(70%) belongs to age group of 10-11 years, 15(30%) belongs to age of 9-10 years. Sex, majority 40(80%) are girls and 10(20%) are boys. Regarding education status, majority 37(70%) are V standard and IV standard are 15(30%). Regarding to the family income, majority 35(70%) are middle class income and 15(30%) are lower class income. Regarding education of parents, majority 35(70%) are SSC and 15(30%) are intermediate. Regarding dietary habits, majority 50(100%) are non-vegetarians. Use of milk, majority 30(60%) are drinking morning, 10(20%) are drinking evening, 5(10%) are drinking morning and evening and 5(10%) are rare. Regarding tooth decay present, majority 30(60%) are 'Yes' and 20(40%) are 'No'.

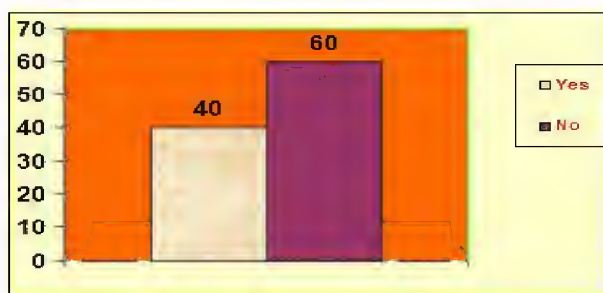


Figure 1: Bar Diagram Percentage Distribution of Respondents Based on Presence Tooth Decay

SECTION – II

Knowledge

Table 2: Sample No=50 Frequency and Percentage Distribution of the Primary School Children Regarding Knowledge of Primary School Children on Oral Hygiene in the Pretest and Post Test

Sl. No.	College Students Knowledge	Pre Test	
		No. of Persons	%
1	Correct answer	10	20%
2	Incorrect answer	40	80%

The above table denotes of primary school children in pretest regarding the oral hygiene. In the pretest 10(20%) primary school children knows correct answers and 40(80%) primary school children doesn't know correct answer.

Table 3: Sample No=50 Frequency and Percentage Distribution of the Primary School Children Regarding Level of Knowledge of Primary School Children in The Post Test

Sl. No.	College Students Knowledge	Pre Test	
		No. of Persons	%
1	Correct answer	35	70%
2	Incorrect answer	15	30%

The above table denotes of primary school children in post test regarding the oral hygiene. In the post test 35(70%) primary school children knows correct answer and 15(30%) primary school children doesn't knows the correct answer.

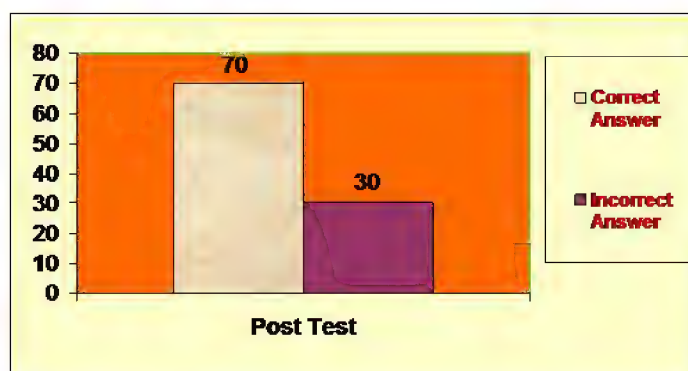


Figure 2: Bar Diagram Showing the Knowledge Score of Respondents Based on Post Test

Table 4: Sample No=50 Frequency and Percentage Distribution of the Primary School Children Regarding Knowledge on Oral Hygiene

Sl. No.	Knowledge of Primary School Children	Correct		Incorrect	
		No. of Students	%	No. of Students	%
1.	Meaning of oral hygiene	35	70%	15	30%
2.	Teeth eruption	40	80%	10	20%
3.	Function of teeth	38	76%	12	24%
4.	Causes of dental caries	29	58%	21	42%
5.	Prevention of dental caries	15	30%	35	70%
6.	Foods for healthy teeth	28	56%	22	44%
7.	Tooth decay means	10	20%	40	80%
8.	Diagnostic measures for dental caries	8	16%	42	84%

Table shows the frequency and percentage distribution of primary school children knowledge regarding oral hygiene in a sample of 50 sample.

- Regarding the meaning of oral hygiene, majority of primary school children 35(70%) answered correctly and very few of them 15(30%) answered incorrectly. Teeth eruption, majority of primary school children 40(80%) answered correctly and very few of them 10(20%) answered incorrectly. Function of teeth, majority of primary school children 38(76%) answered correctly and some of them 12(24%) gave incorrect answers. Causes of dental

carries 29(58%) primary school children answered correctly and some of them 21(42%) gave wrong answers. Prevention of dental carries 15(30%) primary school children answered correctly and some of them 30(70%) gave wrong answers. Foods for healthy teeth 28(56%) primary school children answered correctly and some of them 22(44%) gave wrong answers. Tooth decay means 10(20%) primary school children answered correctly and 40(80%) gave incorrect answers & diagnostic measures for dental caries 8(16%) primary school children answered correctly and some of them 42(84%) gave incorrect answers.

Table 5: Sample No=50 Frequency and Percentage Distribution of the Primary School Children Regarding Attitude of Primary School Children on Oral Hygiene

Sl. No.	Knowledge of Primary School Children	Correct		Incorrect	
		No. of Students	%	No. of Students	%
1.	Dental caries is mostly seen in children	35	70%	15	30%
2.	Toothache is a sign for dental caries	25	50%	25	50%
3.	Early treatment of dental caries is root canal therapy	10	20%	40	80%
4.	Neglected dental hygiene leads to loss of teeth	28	56%	22	44%
5.	Every six months once dental checkup is necessary for children	30	60%	20	40%
6.	Brush the teeth twice a day	40	80%	10	20%
7.	After taking food mouth wash is good for oral health	8	16%	42	84%
8.	Diagnostic measures for dental caries	8	16%	42	84%

Table shows the frequency and percentage distribution of knowledge on attitude of primary school children about oral hygiene in a sample of 50 students.

Regarding dental caries is mostly seen in children 30(70%) primary school children were answered correctly and 15(30%) primary school children were answered incorrectly. Toothache is a sign for dental caries 25(50%) primary school children gave correct answers and 25(50%) primary school children gave wrong answers. Early treatment of dental caries is root canal therapy 10(20%) primary school children gave correct answers and 40(80%) primary school children gave wrong answers. Neglected dental hygiene leads to loss of teeth 28(56%) primary school children gave correct answers 22(44%) primary school children gave incorrect answers. Every six months once dental checkup is necessary for children 30(60%) primary school children gave correct answers and 20(40%) gave incorrect answers. Brushing the teeth twice a day 40(80%) primary school children gave correct answers and 10(20%) gave incorrect answers and after taking food mouth wash is good for oral health 8(16%) primary school children gave correct answers and 42(84%) gave incorrect answers.

SUMMARY, DISCUSSION, FINDINGS, IMPLICATIONS, LIMITATIONS, RECOMMENDATION AND CONCLUSION

The essence of any research project lies in reporting of findings. This chapter gives a brief account of the present study along with the conclusion drawn from the findings, recommendations, and limitations of the study. It also includes suggestion for further studies and nursing implications.

Summary

A study to assess the effectiveness of structured teaching programme on knowledge and attitude regarding oral hygiene among primary school children in a selected rural area at Medikonduru.

- To assess the knowledge regarding oral hygiene among primary school children.
- To determine the effectiveness of structured teaching programme on knowledge regarding oral hygiene among primary school children.
- To assess knowledge and attitude of primary school children on oral hygiene.
- To find the association between the level of knowledge on oral hygiene with selected demographic variables.

The Following Research Hypothesis was Formulated

There will be a significant association between knowledge and attitude among primary school children and their selected demographic factors like age, sex, education, religion, family income, education of the parents, father's occupation, type of family, dietary habits, use of milk, body built, drinking water source, living place.

A review of related literature enabled the investigation to develop the conceptual framework, tools, methodology of study.

Literature review was done for the present study and presentation under the following headings.

- A literature related to prevention of dental caries.
- A literature related to dental caries assessment and its prevention.

The conceptual framework adapted for the present study was based on "Roy's Adaptation Model". This model helped the investigation to assess knowledge and attitude regarding prevention of dental caries among primary school children in the selected primary school at Guntur District.

The research approach for the study was descriptive in nature. So the present study was a descriptive research designs.

The tool developed and used for data collection was an interview/ observation schedule. The content validity of the tool was established by the 6 experts. The tool was found to be reliable and feasible. The reliability of tool was established by inter rater reliability. The tool was administered simultaneously by two persons who were primary school children having equal knowledge and attitude. The obtained coefficient of correlation was high.

The pilot study conducted among primary school children in primary school at Guntur District. The data was collected for a period of three weeks in the month February 2012. Prior permission from authorities was sought and obtained. Individuals were informed and their consent was taken for the study sample selection criteria.

A total of 50 primary students recruited in the study for observation. The objectives and purpose of the study was explained and confidentially was maintained. All the 50 primary students were observed

Discussions

The discussion of study is based on the findings obtained from statistical analysis and also according to objectives.

- To assess the knowledge regarding oral hygiene among primary school children.
- To determine the effectiveness of structured teaching programme on knowledge regarding oral hygiene among primary school children.
- To assess knowledge and attitude of primary school children on oral hygiene.
- To find out the association between the level of knowledge on oral hygiene with selected demographic variables.

Objective – I

To assess the knowledge regarding oral hygiene among primary school children in pretest.

This assessment was conducted with structured questionnaire. The findings of primary students in Table 2 revealed that overall knowledge level in pretest shows the 10(20%) primary students answered correctly and 40 (80%) primary students answered incorrectly,

This includes still primary students awareness regarding prevention of dental caries is lagging which needs to be rectified through structured teaching programme.

Objective – II

To determine the effectiveness of structured teaching programme on knowledge regarding oral hygiene among primary school children.

The findings of primary students in Table 3 revealed that overall knowledge level in post test shows the 35(70%) primary students gave correct answers and 15(30%) primary students gave incorrect answers.

Objective – III

To assess the knowledge and attitude of primary school children on oral hygiene.

This assessment was conducted with structured questionnaire. The findings of primary students in Table 6 revealed that overall knowledge level on attitude of primary school children in pretest shows that 15(30%) had positive attitude and 35(70%) had negative attitude.

This includes that some of the primary students have less knowledge regarding prevention of dental caries to be rectified through structured teaching programme.

Objective – IV

To find the association between the level of knowledge on oral hygiene with selected demographic variables in post test.

The findings of primary school children in Table 7 revealed that overall knowledge level and attitude of primary school in post test shows that 40(80%) primary school children had positive attitude and 10(20%) had negative attitude.

Findings

The findings are furnished based on the objectives of the study.

- Findings related to sample characteristics.

The highest percentage 35(70%) is between age of 10-11 years.

- Findings related to knowledge of children regarding oral hygiene.

As regards knowledge 35(70%) children regarding oral hygiene had correct and 15(30%) had incorrect knowledge.

Implications

Nursing Implications

- Holistic nursing care could be provided for individual family and community to achieve optimum oral hygiene.
- The present study can help nurses to enrich the knowledge on oral hygiene.
- Understanding the needs of school children with poor oral hygiene may help the nurses to plan and provide appropriate oral hygiene to students.
- The present study may help to draw attention of nurses to build up sound knowledge.

Implications for Nursing Service

- Nurses working in pediatrics ward unit should have special training about pediatrics nursing.
- Nurses working in pediatrics ward should have enough knowledge about oral hygiene of children, they should be a keen observer since the children cannot verbalize their needs.
- School nurses never fail to assess the children before starting oral hygiene so that they can plan the nursing care accordingly.
- Not only nurses but all the health care providers such as the auxiliary nurses and midwives, village health nurses, nurses working in community centre should be also given in-service education.
- Rewards can be given to the outstanding nurses in each year in all institutions which will boost the nurses.
- Facilities to be made available for managing children with poor oral hygiene in all hospitals including the community setup.

Implication for Nursing Education

- Nursing curriculum can be modified with increase emphasis on child health nursing.
- Recommendation for short-term course of pediatrics nursing.
- Students can also trained to work in pediatrics care under proper guidance.

Implications for Nursing Administration

- People at the administrator position can make necessary policies to implement the concept of child health nursing.
- The ideal setup of the pediatrics ward should be beneficial for the better care.
- Administrator can organize in-service education programmes.
- Adequate staffing in pediatrics ward to be given as per norms,

Implications for Nursing Research

- The study is a preliminary step for exploring the concept of nurse and involved nursing care with respect to the involvement of the children.
- Further investigator can use this study as a reference material.
- The study provides awareness for further studies among the student in their area.

LIMITATIONS

- Study was limited to the primary school children.
- Sample taken were from the primary school children.
- The data were collected using purposive sampling.

RECOMMENDATIONS

- A similar study can be replicated on a larger sample to generalize the findings.
- A comparative study can be conducted on primary school children of rural and urban school and the findings can be compared.
- The follow-up study may be conducted to determine the effectiveness of the planned teaching programme on oral hygiene of primary school children.
- A similar study can be conducted to parents using the same teaching programme.

CONCLUSIONS

- The findings of the study revealed that the primary school children had low knowledge regarding oral hygiene.
- After administering the planned teaching programme, the school children had good knowledge on oral hygiene.
- Hence, the planned teaching programme was an effective strategy in increasing the knowledge of primary school children.

PART - III

Instructions

This structural checklist seeks information about the attitudes of oral hygiene. Kindly pose the questions one by one and write the appropriate response in the given box at the right hand side of each question. The information provided will be kept confidential.

Table 6

Sl. No.	Attitude Related Statements	Accepting	Non-Accepting
1.	Dental caries is mostly seen in children		
2.	Toothache is a sign for dental caries		
3.	Early treatment of dental caries is root canal therapy		
4.	Taking chocolates and sticky food items frequently is good for teeth		
5.	Neglected dental hygiene leads to loss of teeth		
6.	Every 6 months once dental checkup is necessary for children		
7.	Brush the teeth twice a day		
8.	One of the early indications of poor oral hygiene is bad odour of the mouth		
9.	After taking food mouth wash is good for oral hygiene		
10.	The first stage of dental caries is weakening of enamel.		

REFERENCES

1. Phipps, "Medical Surgical Nursing", 7th Edition, published by Mosby, page no.1003-1006.
2. Joice M.Black, Jane Hokanson Hawks, "Medical Surgical Nursing", 7th edition, volume – I, published by Elsevier, a division of Reed Elsevier India Pvt. Ltd., New Delhi, page no.717-720.
3. Lewis, Heit Kemper, Disken, O'Brien, "Medical Surgical Nursing", 7th edition, published by Mosby, page no. 1000-1003.
4. Brunner & Suddarth's, "Textbook of Medical Surgical Nursing", 10th edition, published by Lippincott Williams and Wilkins, page no, 959-961.
5. Kozier and Erb's, "Fundamentals of Nursing", 8th edition, published by Dorling Kindersley, page no, 376,601,764-765.
6. Potter Perry, "Fundamentals of Nursing", 7th edition, published by Elsevier, page no. 884-888,167.
7. Sr. Nancy, "Principles and Practice of Nursing", 6th edition, volume-I, published by N.R. Brothers, page no. 242-252.

8. Brunner & Suddarth's, "Textbook of Medical Surgical Nursing", 11th edition, published by Wolters Kluwer, page no.1142-1145.
9. Shafer's, "Textbook of Medical Surgical Nursing", 7th edition, published by St. Louis, Missouri, page no.564-567.
10. Ansari & Kaur [PV], "Textbook of Medical Surgical Nursing-I", Multi Color Edition [2011], published by Shin Luis, page no. 427-428.
11. Dr. Aruna Srinivas.K, "Textbook of Nutrition", 1st year B.Sc. Nursing, published by Vijayam Nursing Series, page no. 722-725.
12. Fundamentals of Nursing : A procedure Manual, 1st edition, published by Secretary General on behalf of the Trained Nurses Association of India, page no. 164-170.
13. Bailliere's Nurses Dictionary, 24th edition, edited by Barabara F. Wellef, page no, 69,109.
14. Encyclopedic Medical Dictionary, published by Suresh Chandra Sharma, page no. 88,141.
15. Dorland's Pocket Medical Dictionary, 27th edition, published by Elsevier, a division of Reed Elsevier India Pvt. Ltd., page no. 152, 238.
16. J. Tortora Bryan Derrickson, "Textbook of Anatomy and Physiology", 11th edition, page no, 902-903.
17. Jaypee P R Ashalatha and G. Deepa, "Textbook of Anatomy and Physiology for Nurses", 2nd edition, published by Jaypee Brothers, page no. 180-181, 382-383.
18. The Nursing Journal of India, Vol.6, No.2, May 2010, page no. 46.
19. The Nursing Journal of India, Vol.6, No.3, June 2010, page no. 48-52.
20. The Nursing Journal of India, Vol.7, No.4, July 2011, page no. 48-51.

